ECV **Ciencia Ecuador**
Revista científica multidisciplinar sobre Ciencias de la Salud, Naturales, Sociales y Formales

Letters to Editor.
ISSN 2697-3316.

Letters to Editor

COVID-19 and measures for the prevention of community transmisión

Authors: Telles Charles Roberto [a] , **Farfán-Cano** Harold Reynaldo [b], **Solórzano-Bravo** María Tarcila [c].

Afiliación institucional

a. State Secretariat for Education of Paraná.
b. University of Guayaquil.
c. Pontifical Catholic University of Argentina.

Identification of the responsibility and contribution of the authors: the authors declare that they contributed in a similar way to the original idea, study design, data collection, data analysis, drafting and writing of the article (TC, FCH, SBM).

Correspondencia: Charles Roberto Telles. Curitiba, Brasil. charlestelles@seed.pr.gov.br

Date of presentation: 05/12/2020

Date of approval: 05/20/2020

Date of publication: 07/05/2020

Funding: Any.

Conflicts of interest: The authors declare no conflict of interest with the publication of this manuscript.

Suggested Citation (Vancouver): Telles C, Farfán-Cano H, Solórzano-Bravo M. COVID-19 y medidas para la prevención de la transmisión comunitaria. *RevCienEc* [Internet]. 2020; 2(3): 1-2. doi: 10.23936/rce.v2i3.16

Development

With respect to policy measures aimed at countering COVID-19 in a stage of advanced community transmission by different government agencies, three have been confirmed as fundamental for reducing the spread of COVID-19, these are social distancing (maintaining a distance of between 1 and 2 meters in conjunction with the additional use of surgical masks or chin guards), social isolation and sanitation of the urban perimeter, supported by the availability of diagnostic tests for the timely detection of SARS-COV-2 infection. For this reason, it should be considered mandatory in all national regulations for community management that the above-mentioned measures be applied simultaneously, in a gradual and timely manner, based on the evidence of cases reported by the diagnostic curve of each city, region or country. Also, with respect to diagnostic tests, the most reliable way to detect the virus genome is from respiratory samples from patients using molecular biology with RT-PCR. However, the use of rapid tests can be considered according to the economic situation of each country, always observing the sensitivity and specificity of each one, for the follow-up of previously diagnosed cases. [1]

With the adoption of these policy measures (use of masks, spacing and isolation), there has been a significant reduction in the exponential rate of transmission in both China and South Korea, which applied all three methodologies from the early stages of the spread of the viral agent, in contrast to other countries, leading to better results in local control of the pandemic. [2]

Thus, the reduction in dissemination observed in China has as a counterpart the results observed for South Korea (which applied the universal use of masks among citizens and the disinfection of urban environments, in conjunction with distance and/or isolation). This observation leads to the hypothesis of a potential for atmospheric transmission of the virus, beyond compliance with distancing measures, as already mentioned by other authors. [3]

Another important point for the use of masks is that, if diagnostic tests are not universally available for the entire population, it allows for a decrease in transmission, by applying them to those infected but not detected; the application of social distancing measures simultaneously with the use of masks and the disinfection of the urban perimeter, can contribute to prevent the spread of the infection, since they allow to diminish the probable transmission from the asymptomatic or oligosymptomatic cases, by reduction of the viral load in the surfaces, as well as reducing the aerial transmission (by the use of the masks previously commented) protecting the non-infected ones of the transmission by environmental route. [1,2,3]

This means that strategic measures to address community transmission, in order to achieve greater efficiency (distance, isolation, hand hygiene, sanitation of the urban environment, widespread use of masks) should be carried out based on the availability of the equipment and inputs necessary for their implementation, with funding being a limiting factor. The individual dimension of prevention (collaboration and support from citizens) is necessary for the measures implemented by government agencies to have a favorable effect on stabilizing the dissemination curve of COVID-19.

Analyzing also other countries in South America, based on the mentioned evidence,

we have Argentina and Paraguay, which adopted strict political measures for the population regarding isolation and social distancing (masks and disinfection of public spaces of great circulation), obtaining low rates of community transmission of the infection. In contrast to these two countries, Brazil has serious flaws between the measures adopted by the national and state entities, specifically in social isolation, due to factors such as inadequate or frank non-compliance with the measures by the community or due to political divergences, the absence of a single national guide for the management of the measures and limited access to diagnostic tests; the adoption of social distancing, the use of masks and disinfection of public spaces, were adopted in an adequate time compared to the global panorama. For this case in Brazil, the lack of adhesion of the states and the lack of a common discourse with the federal government specifically for social isolation, were factors that strongly influenced the increase of cases of COVID-19 in the capitals and smaller cities of each of the states. These panoramas are very different from Ecuador where these measures have been taken, only in the last weeks of April, which is evidenced by a high incidence of cases, however, with the implementation of the mentioned measures, a gradual decrease of the incidence has been observed.

References

1. Farfan, G. Perspectiva sobre la enfermedad por Coronavirus 2019 (COVID-19). INSPILIP [Internet]. 2020; E1: 1-23.

2. Telles, C. Covid-19: a brief overview of virus social transmission through atmosphere. [Internet]. 2020 [cited 8 May 2020];. Available from: https://doi.org/10.33767/osf.io/2hek4.

3. Liu Y, Ning Z, Chen Y, Guo M, Liu Y, Gali N et al. Aerodynamic Characteristics and RNA Concentration of SARS-CoV-2 Aerosol in Wuhan Hospitals during COVID-19 Outbreak. [Internet]. 2020 [cited 8 May 2020];. Available from:

https://doi.org/10.1101/2020.03.08.982637.